



PATENTS  
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re The Application of: )  
Silvano Gai et al. )  
Serial No.: 09/535,810 )  
Filed: March 28, 2000 )  
For: METHOD AND APPARATUS )  
FOR HIGH-SPEED PARSING )  
OF NETWORK MESSAGES )

Examiner: Phuoc H. Nguyen

Art Unit: 2143

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Commissioner for Patents  
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Sir:

PRELIMINARY AMENDMENT

Applicants submit the following remarks in connection with the Request for Continuing Examination (RCE) filed on the same date. Reconsideration and further examination are respectfully requested.

In a Final Office Action mailed March 17, 2004, claims 1, 2, 4-10, 12-18, and 25 were rejected under 35 U.S.C. §102(e) as anticipated by U.S. Patent No. 6,591,331 to Khanna. (“Khanna”). Claims 3 and 11 were objected as being dependent on rejected base claims. Claims 19-24 are allowed.

Applicants submit herewith the Declaration Under 37 C.F.R. §1.131 of Co-inventors Silvano Gai and Thomas J. Edsall. As set forth in the Declaration, the present invention was conceived by the co-inventors prior to December 6, 1999 (the filing of Khanna) and the co-inventors worked diligently to reduce their invention to practice from a time prior to December 6, 1999 until their filing date. Accordingly, pursuant to §1.131, Khanna is no longer effective as a reference against the present application. Furthermore, because the rejection of claims 1, 2, 4-10, 12-18, and 25 hinges on Khanna, these claims are now allowable.

Applicants further submit that the present invention is distinguishable over Khanna. More specifically, as recited in exemplary claim 1, the present invention is directed to:

“A pattern matching engine for use in searching network messages for pre-defined regular expressions and for determining matches thereto, the pattern matching engine comprising:

a regular expression storage device for storing the pre-defined regular expressions and one or more corresponding actions that are to be applied to network messages matching the respective regular expressions, the storage device including a content-addressable memory (CAM) having a plurality of entries containing at least the pre-defined regular expressions; and

a decoder circuit coupled to the regular expression storage device, the *decoder circuit configured to control an input to the CAM that includes a given network mes-*

*sage or selected portion thereof* for comparison with the regular expressions contained within the CAM, and to receive and decode an output returned from the regular expression storage device, the output identifying the action to be applied to the given network message or portion thereof,

whereby the CAM is configured such that each network message or portion thereof input to the CAM is compared against all CAM entries at the same time, allowing high-speed pattern matching of network messages.”

None of the art of record either alone or in combination teaches or suggests the decoder circuit configured to control an input to the CAM that includes a given network message or selected portion thereof.

Specifically, Khanna’s decoder generates “enable signals” to control the output of the REL circuits, where the output is ultimately used to generate a sub-block address at the priority encoder. Khanna provides no disclosure that their decoder can somehow control an input to a CAM. Indeed, directing the Examiner’s attention to Fig. 1 of Khanna, there is no control or other line from Khanna’s decoder (element 112) back to the comparand data (118) that is being input into the CAMs (102). Instead, Khanna’s decoder (112) is only able to control the REL circuit blocks (104).

In sharp contrast, in the present invention, the decoder circuit (302) is connected to the CAM (304) through the TAG Space (318) in figure 3. This shows the decoder enabled to control an input to the CAM.

Accordingly, the decoder in Khanna cannot control the CAM because the decoder is not connected to the CAM as is in applicant's figure 3. Therefore, Applicant respectfully urges that the Khanna patent is legally precluded from anticipating the claimed invention under 35 U.S.C. § 102 because of the absence from the Khanna patent of Applicant's decoder circuit configured to control an input to the CAM that includes a given network message or selected portion thereof.

Early favorable action is respectfully requested.

All independent claims are believed to be in condition for allowance. All dependent claims are dependent on believed to be allowable independent claims and therefore believed to be in condition for allowance.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,

  
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